



# Curriculum Intent

In Computing we aim to provide an engaging, challenging, well sequenced curriculum which is broad and balanced, covering a range of computing and ICT topics. We aim to develop our students into 21st Century Digital Citizens who are able to use digital technology safely and responsibly, and to teach students both how to use technology effectively, with an understanding of how it works.

We aim to engender a love of learning, self-belief and aspiration through 4 key intentions:

- The Removal of Barriers to Learning
- Developing Skills for Learning
- Developing Personal Attributes
- Enriching Student Experiences and Broadening their Horizons

The Computing and IT Department's core purpose is to deliver an engaging and challenging curriculum through outstanding teaching and learning. Our aim is for students to develop skills and knowledge to prepare them for a future in a world where the use of technology is fully embodied.

# Year 12 Curriculum

In Year 12 the following topics are covered:

The Characteristics of Contemporary Processors, Input, Output and Storage Devices.

The structure and function of the CPU is explored, looking at the key components, factors affecting performance, different CPU architectures and instruction sets.

Software and Software Development

In this topic we focus on the different types of software and the different methodologies used to develop software. Systems software is explored, looking at functions of the operating system, memory management, interrupts, scheduling and multitasking.

Exchanging Data

Here we look at compression, encryption and hashing - this includes lossy and lossless compression, run length encoding and dictionary coding for lossless compression and symmetric and asymmetric encryption. This topic also includes relational databases where the fundamental principles are covered.

Elements of Computational Thinking

Here we build an understanding of what



# Have your say!

At WPT we're always looking for feedback. If you have any thoughts/opinions on this Curriculum Newsletter, its content or the curriculum in general, please scan the QR code to fill out a short feedback form.



# The Computing Way

The Computing Way is designed to help students become young subject specialists and has a key focus on the vital skills needed to achieve their full potential in this subject area.